VX-3200 SERIES

VHF/UHF Mobile Radios

- ALPHA NUMERIC DISPLAY (14 SEGMENTS x 8 DIGITS)
- RUGGED DIE-CAST CONSTRUCTION
- CTCSS ENCODER/DECODER
- DUAL 2-TONE DECODING
- DCS ENCODER/DECODER
- DTMF ANI ENCODER
- VERSATILE SCANNING
- COMPANDER INCLUDED
- EMERGENCY FUNCTION
- ENCRYPTION (OPTIONAL - FVP-25)
- DTMF PAGING (OPTIONAL - FVP-25)
- DB9 CONNECTOR BUILT-IN
- FRONT MOUNTED SPEAKER
- ARTS™ FUNCTIONS ON THE CONVENTIONAL MODE
- TOT, BCLO, BTLO FUNCTIONS
- MIL SPEC RATED (MIL 810 C, D and E)
- KEY ASSIGNMENT AVAILABLE
- PROGRAMMABLE ALERT TONES
- PC PROGRAMMABLE

Vertex Standard

VX-3200 SERIES

The 128-channel VX-3200 Series mobile transceivers are ideal for business and public safety applications. With 50 Watts of power output on VHF (45 W on UHF), an easy-to-read 8-character invertible alpha-numeric display, nine programmable keys, and a host of signaling formats, the VX-3200 will get your message through under the toughest conditions.

Alpha-numeric Display (14 Segments x 8 Digits)
The 8-digit Alpha-numeric display allows quick channel identification by the user, and is easy to read from a wide range of viewing angles.

CTCSS Encoder/Decoder
Subaudible (CTCSS) 50-tone Encoder and Decoder circuits are built into every VX-3200, ensuring compatibility with modern repeater requirements.

DCS Encoder/Decoder
For applications requiring Digital Coded Squelch signaling, full-featured DCS Encoder and Decoder circuits provide leading-edge protection from false decoding.

DUAL 2-TONE DECODING
For applications where a mobile may be receiving calls from more than one dispatcher on a particular channel, the VX-3200 includes a built-in Dual Two-Tone Decoder circuit.

DTMF ANI Encoder
Automatic Number Identification (ANI) via an automatic DTMF Encoder is also provided among the VX-3200's versatile signaling capabilities.

Versatile Scanning
A wide range of set-up options are available during configuration of the VX-3200, to ensure compatibility with the operating requirements of your system's users.

Compander Included
For narrow-band channel applications, the built-in Audio Companding system compresses the voice waveform during transmission, and expands it during reception, allowing full-sounding audio despite the restricted transmission bandwidth.

Emergency Mode
When activated, the "Emergency" feature sends out the DTMF ANI, and cycles between transmit and receive, to serve as an emergency beacon to alert the dispatcher as to the need for immediate aid.

Encryption (Optional FVP-25 required)
For applications requiring secure communications, the optional FVP-25 Paging/Encryption Unit provides scrambling and descrambling functions.

DTMF Paging (Optional FVP-25 required)
For dispatch or network operations where DTMF Paging is required, the optional FVP-25 Paging/Encryption fulfills this requirement, as well.

ARTS™ Feature (Conventional Mode)
The Auto-Range Transponder System, a Vertex Standard exclusive, alerts the operator when another ARTS™-equipped station (for example, a hand-held unit) moves out of communication range. You can then advise the other user to move to a better location.

TOT, BCLO, BTLO Features
Among the most useful protection features of the VX-3200 are the transmitter Time-Out Timer (TOT), Busy Channel Lock-Out (BCLO), and Busy Tone Lock-Out (BTLO), to ensure efficient network performance at all times.

Programmable Front Panel Keys
Custom assignment of important functions to front panel keys is available at the time of programming, to provide the most ergonomically-friendly transceiver available today.

Programmable Alert Tones
Among the useful set-up options for the VX-3200 is the capability to customize the "Alert" tones generated from the transceiver, for ease of recognition by the user.

Rugged, Die-cast Construction
The VX-3200's circuitry is housed within a die-cast aluminum enclosure, which doubles as a heat sink. This extraordinarily durable construction ensures many years of reliable operation, even in high-vibration installations.

MIL-Spec Rated (MIL 810 C/D/E)
The ultra-rugged design of the VX-3200 Series enables it to be fully compliant with the exacting specifications of MIL 810 C, D, and E, pursuant to the test procedures documented below.

APPLICABLE MIL-STD (Pending)

Standard	MIL 810C Methods/Procedures	MIL 810D Methods/Procedures	MIL 810E Methods/Procedures
Low Pressure		500.2/Procedure 1	500.3/Procedure 1
High Temperature	501.1/Procedure 1,2	501.2/Procedure 1,2	501.3/Procedure 1,2
Low Temparature	502.1/Procedure 1	502.2/Procedure 1,2	502.3/Procedure 1,2
Temperature Shock	503.1/Procedure 1	503.2/Procedure 1	503.3/Procedure 1
Solar Radiation	505.1/Procedure 1	505.2/Procedure 1	505.3/Procedure 1
Rain	506.1/Procedure 2	506.2/Procedure 2	506.3/Procedure 2
Humidity	507.1/Procedure 2	507.2/Procedure 2	507.3/Procedure 2
Salt Fog		509.2/Procedure 1	509.3/Procedure 1
Dust		510.2/Procedure 1	510.3/Procedure 1
Vibration	514.2/Procedure 1,8	514.3/Procedure 1,8	514.4/Procedure 1,8
Shock	516.2/Procedure 1,4	516.3/Procedure 1,4	516.4/Procedure 1,4

Specifications

	VX-3200V	VX-3200U
General Specifications		
Frequency range	134-160 MHz 148-174 MHz	400-430 MHz 450-490 MHz 480-512 MHz
Number of Groups	10	
Number of Channels	128 channels	
PLL Steps	2.5/5.0/6.25 kHz	5.0/6.25 kHz
Power Supply Voltage	13.6 VDC ±15 %	
Channel Spacing	12.5 /15.0 / 25.0 /30.0 kHz	12.5 / 25.0 kHz
Current Consumption	TX: 10 A RX: 700 mA STBY: 250 mA	
Operating Temperature range	-22 F to 140 F (-30° C to +60° C)	
Frequency Stability	Better than ±2.5 ppm	
RF Input-Output Impedance	50 Ohms	
Audio Output Impedance	4 Ohms	
Dimensions	6.3 in x 1.57 in x 6.7 in (160 mm x 40 mm x 170 mm)	
Weight	3.09 lb (1.4 kg)	

Measurements per EIA standards unless noted above. Specifications subject to change without notice or obligation.

	VX-3200V	VX-3200U
Receiver Specifications	Measurements made per TIA/EIA-603	
Circuit type	Double conversion Super-heterodyne	
Sensitivity	0.25 uV (12 dB SINAD)	
Adjacent Channel Selectivity	85/70 dB	80/67 dB
Intermodulation	80 dB	
Spurious and Image Rejection	90 dB	
Audio Output	4 W @ 4 Ohms 5% THD	
Audio Distortion	<3 % @1 kHz	
Transmitter Specifications	Measurements made per TIA/EIA-603	
Power Output	50 W (Low: 10W)	45 W (Low: 10W)
Modulation	16K0F3E, 11K0F3E	
Max Deviation	5.0/2.5 kHz	
Conducted Spurious Emission	70 dB below carrier	
Audio Distortion	<3 % @ 1 kHz	
Microphone type	Dynamic	
Microphone impedance	600 Ohms	

Accessories & Options

MH-25A8J
Standard Microphone

MH-700D
DTMF Dial Microphone

MD-11A8J
Desktop Microphone

MLS-100
Mobile Loud Speaker (12 Watts Peak Power)

FP-1023A
External Power Supply 23 A DC

FVP-25
DTMF Paging + Encryption unit

LF-1
Line Filter

VPL-1
Programming Kit (Computer to Radio)

CT-4
(T99101411)
Cloning cable

CE 52
PC-Programming Software

VX-3200V has not been authorized as required by the rules of the Federal Communications Commission. VX-3200V is not, and may not be, offered for sale or lease, or sold or leased, until authorization is obtained.

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